

7-14 HYDRANTS

7-14.1 Description

This Section covers the installation of dry barrel fire hydrants intended for ordinary water works service.

7-14.2 Materials

Materials shall meet the requirements of the following sections:

Hydrants	9-30.5
End Connections	9-30.5(1)
Hydrant Dimensions	9-30.5(2)
Hydrant Extensions	9-30.5(3)
Hydrant Restraint	9-30.5(4)
Traffic Flange	9-30.5(5)
Guard Posts	9-30.5(6)

7-14.3 Construction Requirements

7-14.3(1) Setting Hydrants

Where shown in the Plans, hydrants shall be installed in accordance with the Standard Plans. In addition, a minimum 3-foot radius unobstructed working area shall be provided around all hydrants. The sidewalk flange shall be set 2-inches above finished grade.

All hydrants shall be set on concrete blocks as shown in the Standard Plans. The hydrant barrel drain shall waste into a pit of porous gravel material situated at the base of the hydrant as shown in the Standard Plans.

All hydrants shall be inspected upon delivery in the field to ensure proper working order. After installation, fire hydrants, auxiliary gate valves, and other appurtenances thereto shall be subjected to a hydrostatic test and disinfection procedures as specified in Section 7-09.

After all installation and testing is complete, the exposed portion of the hydrant shall be painted with 1 field coat. The type and color of paint will be designated by the Engineer.

Any hydrant not in service shall be identified by covering with a burlap or plastic bag properly secured.

7-14.3(2) Hydrant Connections

Hydrant laterals shall consist of 1 continuous section of 6-inch ductile iron pipe from the main to the hydrant and shall include an auxiliary gate valve set vertically and placed in accordance with the Standard Plan.

7-14.3(2)A Hydrant Restraints

The thrust created in the hydrant lateral shall be restrained as shown in the Standard Plans. If applicable, shackle rods, after installation, shall be cleaned and painted with 2 coats of asphalt varnish, or with such other bituminous coating as may be approved by the Engineer.

7-14.3(2)B Auxiliary Gate Valves and Valve Boxes

Auxiliary gate valves and valve boxes shall be installed in accordance with Section 7-12 except that the end connections shall be provided with lugs for shackling, or the bells shall provide sufficient clearance between the body of the valve and the hub to permit the installation of shackles.

7-14.3(2)C Hydrant Guard Posts

Hydrant guard posts shall be constructed at the locations shown in the Plans. The exposed portion of each guard post shall be painted with 1 coating of the type and color designated by the Engineer.

7-14.3(3) Resetting Existing Hydrants

Where existing hydrants are shown in the Plans for adjustments to conform to a new street alignment or grade or both, the hydrant shall be relocated without disturbing the location of the hydrant lateral tee at the main.

The method for thrust restraint for the hydrant lateral shall be determined by the conditions found in the field and shall be constructed as ordered by the Engineer at no additional cost to the Contracting Agency.

This Work shall conform to Section 7-14.3(1).

7-14.3(4) Moving Existing Hydrants

Existing hydrants shall be moved where shown in the Plans. When the existing hydrant lateral tee does not accommodate a new hydrant location, a new hydrant lateral tee shall be installed in the main. The existing hydrant lateral tee shall be removed from the main (if said main is to remain active), and a new section of pipe inserted into the water main in place of the existing hydrant lateral tee. Where the existing main to which the existing hydrant lateral tee is connected, and is to be abandoned or temporarily activated after the existing hydrant is moved, the open end of the hydrant lateral pipeline shall be plugged (and temporary thrust restrain provided if temporarily reactivated). All Work shall meet the requirements of Section 7-14.3(1).

7-14.3(5) Reconnecting Existing Hydrants

Existing hydrants shall be reconnected where shown in the Plans. The location and elevation of the existing hydrant shall remain unchanged, but the existing hydrant connection is changed to connect with a new hydrant tee provided in a new main.

Where existing hydrants were not shackled to the old main, the new connection shall be shackled with steel rods as shown in the Standard Plans, or by such other shackling method as approved by the Engineer.

Hydrant reconnections shall meet the requirements of Sections 7-14.3(1) and 7-14.3(2).

7-14.3(6) Hydrant Extensions

The Contractor shall furnish and install hydrant extensions where required. The hydrant extensions, operating stems for the hydrant main valves, and sidewalk flanges shall conform to AWWA C502. After installation, the extended fire hydrant shall be subjected to a hydrostatic pressure test and disinfection procedure as specified in Section 7-09.

7-14.4 Measurement

Measurement of hydrant assembly, resetting existing hydrants, moving existing hydrants, and reconnecting existing hydrants will be made per each. Measurement of hydrant extension will be made per linear foot.

7-14.5 Payment

Payment will be made in accordance with Section 1-04.1, for each of the following Bid items that are included in the Proposal:

“Hydrant Assembly”, per each.

The unit Contract price per each for “Hydrant Assembly” shall be full pay for all Work to furnish and install fire hydrant assemblies, including all costs for auxiliary gate valve, shackles, tie rods, concrete blocks, gravel, and painting required for the complete installation of the hydrant assembly as specified, except the pipe connecting the hydrant to the main and the hydrant lateral tee will be paid for as specified in Section 7-09.5.

“Resetting Existing Hydrants”, per each.

The unit Contract price per each for “Resetting Existing Hydrant” shall be full pay for all Work to reset the existing hydrant, including shackling, painting, and reconnecting to the main. New pipe required from the main to the hydrant will be paid as specified in Section 7-09.5.

“Moving Existing Hydrants”, per each.

The unit Contract price per each for “Moving Existing Hydrant” shall be full pay for all Work to move the existing hydrant, including new hydrant lateral tee, shackling, painting, and reconnecting to the main. New pipe for hydrant connections will be paid for as specified in Section 7-09.5.

“Reconnecting Existing Hydrants”, per each.

The unit Contract price per each for “Reconnecting Existing Hydrant” shall be full pay for all Work to reconnect the existing hydrant, excepting however, that new pipe used for the connection will be paid as specified in Section 7-09.5.

“Hydrant Extensions”, per linear foot.

The unit Contract price per linear foot for “Hydrant Extension” shall be full pay for all Work to extend the hydrant vertically.